

3. STRATEGIC PLAN SUMMARY

In 1999, MASS AUDUBON undertook a comprehensive strategic planning effort to guide its efforts for 2000 – 2010. Twenty-seven staff and Board members served on strategic planning teams, including five staff working on the project full time. Members provided valuable input by participating in regional meetings and completing a survey on Mass Audubon's mission and activities. McKinsey & Company provided pro bono support, dedicating three full-time staff to the effort. By encouraging inclusiveness and direct participation, the process engaged people at all levels of the organization in candid and constructive dialogue. Another rewarding aspect was talking to, and learning from, directors and staff of other conservation organizations and state and federal agencies who contributed their frank assessments of Mass Audubon's strengths and weaknesses as well as their perspectives on important conservation issues.

The outcomes of Mass Audubon's strategic planning process were:

- **defining our role** to serve both as a leader and as a catalyst for conservation by acting directly to protect the nature of Massachusetts and by stimulating individual and institutional action through education, advocacy, and habitat protection.
- taking leadership to **promote a shared conservation goal**: *We embrace a vision of a Massachusetts in which people appreciate and understand native plants and animals and their habitats and work together to ensure that they are truly protected.*
- creating a **shared sense of direction** by defining the **primary environmental threats** to the nature of Massachusetts: *habitat loss, habitat fragmentation, disruption of ecological processes, invasive species, and incompatible land use.* Developing and implementing effective responses to these challenges in a balanced and focused manner, both within our organization and in partnership with others, will determine our role.
- **aligning programmatic activities with conservation priorities** to ensure an integrated approach, yet one that gives us the flexibility to address both statewide and local concerns in the most effective manner.

The key component of the Strategic Plan is to align all our programs across the state with our conservation priorities. As a first step, staff and management were reorganized by 2001 to facilitate this shared direction. Sanctuaries were reorganized into three regions, and with the implementation of regular statewide education meetings, programming has been realigned to be mission-driven. As a second step, a Science Review Committee, chaired by a Board member and staffed with outside experts, interviewed 34 staff, Board members, and outside experts, and then prepared a report with recommendations for reorganizing science. The new Conservation Science and Ecological Management Division, which includes regional conservation scientists, grew from this report.

For the next step, individual master plans were completed for education, information technology, communications, staff learning, and land protection. All plans are mission-driven and detail specific initiatives and timetables for achievement. The Education Master Plan aims to create significant life experiences through increased contact hours with participants and strong primary messages based on the conservation theme. A major focus has been the development of a comprehensive, statewide plan for interpretation at the sanctuaries. This plan outlines methods for reaching the hundreds of thousands of sanctuary visitors whom we have not served well to date—the “casual” visitors to our sites who do not participate in formal programs and may not be exposed to our messages. Evaluation is key to all our efforts, and a \$520,000 grant from an anonymous foundation is supporting a major 5-year plan. Although spearheaded by the education department, results will inform all areas of our work.

The **Annual Work Plan** is the primary means by which Mass Audubon monitors progress in carrying out the Strategic Plan. Each January, all units (sanctuaries and departments) begin work on planning and budgeting for the coming fiscal year. The Work Plan is comprised of Habitat Conservation Goals, Fundraising and Membership Goals, and Management Unit Specific Goals (typically sanctuary or program-specific activities that are essential to smooth, effective operations). Unit Managers are encouraged to coordinate within regions and across divisions, involve staff, volunteers, and sanctuary committee members, and set goals that are specific, measurable, attainable, resource-based, and timely. For each goal, a lead person and key staff are identified, and a completion date is set. The Annual Work Plans are reviewed regularly by program directors and regional directors, and by senior staff and the President quarterly. The full Board reviews progress on an annual basis.

Mass Audubon's **Education Master Plan** is particularly germane to Drumlin Farm's IMLS proposal. Created in December 2000 by a seven-member team representing all program departments, it reformulates our educational strategy so our interactions with the citizens of Massachusetts will comprise a continuum of learning experiences that will ultimately motivate them to act on behalf of the environment. We view education not as an end in itself, but as the essential step in guiding citizens to become committed stewards of the nature of Massachusetts. The plan delineates five aspirations, each with a set of goals and initiatives:

- *Aiming for Significant Life Experiences* with programs that have a strong primary message based on the five threats to biodiversity; increased contact hours per year with program participants, and programs that go beyond creating awareness and building knowledge to inspiring conservation action
- *Fostering Community Conservation Leaders* through targeted educational opportunities
- *New tools* using a variety of media to create learning opportunities for audiences beyond those reached by traditional education programs. This includes **developing a comprehensive, statewide plan for interpretation at Mass Audubon sites.**
- *Common Focus: Common Goals* to leverage the benefits of being a statewide organization while maintaining the unique qualities of the individual sanctuaries
- *Strengthening our Internal Capacity* with sufficient and appropriate resources and sustainable workloads

As an outgrowth of the strategic planning process, individual sanctuaries are creating their own master plans to guide their annual work plan. **DRUMLIN FARM** has completed a facilities inventory that details the status of buildings, repairs needed, and costs. Sasaki Associates, a planning and architectural consulting firm, developed plans for the farm's capital campaign, now underway. This will help the farm serve visitors in a manner that leaves a lasting and positive impact, while promoting Mass Audubon's vision of protecting the nature of Massachusetts. A new greenhouse in the farmyard and a redesigned entryway to the farm have just been completed as part of this, and several more elements will be phased in. An **ecological management plan** was instituted in mid-1990s, and it guides the management of Drumlin's 232 acres, including removal of invasive plant species and managing of grasslands for wildlife conservation. A **land protection plan** is currently underway.

Improved on-site interpretation at our sanctuaries was one of the most important needs identified during the education assessment. To address this statewide, a new education position was created—Visitor Experience Coordinator. Together, the Coordinator and the statewide Director of Education are collaborating with each staffed sanctuary to develop a detailed interpretation plan for that site. Drumlin Farm's **Interpretive Plan** was approved by the Board in 2003. Drumlin's Adult and Visitor Education Manager met with a range of people, including staff, Advisory Committee members, docents, long-term volunteers, and community members in focus groups to:

- create a set of messages and desired understandings for visitors to the sanctuary
- identify the audiences visiting the sanctuary and establish the needs of those visitors
- plan how best to convey the core messages to the identified audiences
- develop a draft of the interpretive plan

The primary **interpretive themes** (messages) that have been identified through the planning process are:

- Drumlin Farm offers a first-hand opportunity for visitors to become part of a farm—to see how humans interact directly with the land for the purposes of raising food and fiber
- Each of us can make decisions in our everyday lives that together will help protect the nature of Massachusetts
- Drumlin's land is managed in a way that creates and conserves wildlife habitat in addition to providing the agricultural products that we all need and use

The audiences that were identified as users of the farm fell into six categories, with school groups dovetailed into the first four: visitors who want to look, listen and smell; visitors with focused interests; visitors interested in the big picture; individuals who want to help out; consumers/shoppers; and members of the local community. The interpretive team then created a grid that details how best to convey each of the three core messages to each of the six audience categories. Main Street Design, a local exhibit design firm, was then hired to prepare an **Interpretive Design Master Plan** for the farm. This presents a conceptual blueprint for self-directed interpretation at the sanctuary, involving an integrated system of interpretive exhibit components ranging from large-scale installations to individual species identification graphics. Funding from IMLS will help us implement a portion of this plan.

DRUMLIN FARM: MUSEUMS FOR AMERICA PROPOSAL NARRATIVE

1. PROJECT DESIGN: Drumlin Farm Wildlife Sanctuary is requesting funds from IMLS to implement a portion of its Interpretive Design Master Plan: **the creation and installation of nineteen exhibit panels and the increased time of the personnel it will take for implementation.** This is part of the second phase of our *Strengthening Visitor Education* initiative, which is aimed at **creating on-site learning opportunities targeted to the tens of thousands of “casual” visitors to our sanctuary who do not participate in formal programs and may not be exposed to our messages, while also benefiting those taking part in formal programs.** This supports Mass Audubon’s Education Master Plan, which aims to provide a continuum of learning experiences that will ultimately motivate the citizens of Massachusetts to act on behalf of the environment.

While Drumlin has a sophisticated educational outreach program to schools, including the popular Audubon Ark (traveling live animal) program, and successful on-site school and public education programs, its services and interpretation for the casual visitor have been inconsistent. We want to provide high quality, consistent, and focused educational offerings that use the farm’s habitats, native wildlife, seasonal happenings, ecological management activities, and cultural history as a basis for sanctuary visitors of all ages. Thanks to a grant from the Sudbury Foundation, Drumlin has completed the first phase of improving on-site visitor education by strengthening direct, interpersonal interpretation. This involved staff restructuring and extensive training for staff and docents; the development of program notebooks on a variety of topics to guide interpreters in presenting on-site programs; the purchase of program supplies; posting inexpensive signage to alert visitors of daily program activities; and encouraging visitors to explore beyond the farmyard and use the entire site, including the trails, fields, and the drumlin itself.

We are now moving into the second phase of *Strengthening Visitor Education* – strengthening self-directed interpretation through exhibits. **Improved on-site interpretation was one of the most important needs identified during Mass Audubon’s education assessment.** As Mass Audubon’s flagship sanctuary and one of the most visited in its system of sanctuaries, Drumlin serves a large audience of urban and suburban constituents, primarily families and school groups. Through the strategic planning process, it became clear that direct, interpersonal interpretation, while effective and deeply meaningful, was not fully succeeding in communicating the breadth of the sanctuary’s messages to the full spectrum of its visitors. With major physical improvements to Drumlin’s buildings and grounds either in the planning stages or already underway, the sanctuary recognized a critical need to develop a clear and achievable framework for future development of interpretive exhibits and graphics, along with other forms of self-guided interpretation.

Drumlin Farm’s proximity to Mass Audubon’s headquarters (across the street), along with its unique combination of sustainable agriculture, habitat conservation, and environmental education activities, makes it unique in the sanctuary network. Its role in preserving significant open space and wildlife habitat resources in Boston’s intensively developed western suburbs provides a powerful model for local and regional land conservation efforts. This has informed the **Interpretive Design Master Plan** for the sanctuary, which was developed by our consultants, Main Street Design. Drumlin’s previous efforts to address interpretation resulted in a haphazard, discontinuous, and sparse dispersal of exhibits and signage across the sanctuary. However, the consultants recognized that this informal approach was an essential part of the farm’s culture to our visitors. Working closely with sanctuary staff, the consultants developed an integrated system of interpretive exhibit components ranging from relatively large-scale installations to individual species identification graphics while maintaining the look of a New England working farm that our visitors expect. The plan establishes a clear typology of components and identifies appropriate locations for each.

The plan’s layered, interpretive components are designed to be implemented incrementally over time. A large-scale **Sanctuary Orientation** area will serve as a robust “advance organizer” for a visit. **Area Orientations** are planned for six key locations at the farm. These will introduce visitors to major features/areas of the sanctuary and to critical concepts, stories, and ideas associated with those areas. **Interpreted Views** will identify, explain, and interpret specific features visible from the exhibit location. **Farm Building Identification and Orientations** will explain the purpose and functions of key agricultural buildings, providing a basic “field guide” to their purpose and contents. **Species Identification** panels will provide concise, accurate, and easily accessible baseline information about live animals displayed at the sanctuary, including native species and farm animals. A **Children’s Discovery Trail**, **Flexible Interpretation** for changing or ephemeral events, and **Special Purpose** exhibits round out the plan.

Drumlin Farm is requesting funds from IMLS to create and install nineteen specific components of the Interpretive Design Master Plan: **four Interpreted View panels** (Vernal Pool, Bobolink Field, Drumlin Underground, and Bird Hill), and **fifteen Species Identification panels** for animals located at the Bird Hill and Drumlin Underground exhibits. Bird Hill is an outdoor area with enclosures housing native birds, and Drumlin Underground is an outdoor/indoor exhibit that houses native mammals. All wildlife at Drumlin Farm are injured or otherwise unable to be returned to the wild. The Vernal Pool and Bobolink Field are open habitats at Drumlin.

- the **Vernal Pool** panel will direct visitors' attention to this subtle, yet significant environmental feature. Visitors will learn what vernal pools are (ephemeral pools of spring), why they are important, and what role they play in the forest ecosystem. We also want to motivate visitors to care about vernal pool conservation, including learning how to certify a vernal pool.
- the **Bobolink Field** presents a perfect site for interpreting land management for wildlife habitat. This habitat is successional and, unless actively managed, will become woody and unusable by bobolinks. Visitors will learn that animals that depend on fields and grasslands are becoming scarcer as open areas are developed or impacted by invasive plant species. This exhibit will provide information on how Drumlin manages this area by mowing and sheep grazing.
- **Drumlin Underground** provides an introduction to some of our native mammals, their life history, and habitat needs. It also gives us an opportunity to discuss habitat threats, human impacts on wildlife, and "wildlife in your backyard" issues, as native wildlife are showing up in the region's neighborhoods in increasing numbers.
- the **Bird Hill** panel will showcase native raptors and other local bird species. Information about different hunting technique of owls versus hawks and buteos versus accipiters will lead to a discussion of different habitat needs and the threats to these habitats.

The **Species Identification panels** will provide photos or illustrations of the animal species on display, common and scientific names, and a brief description of preferred diet and habitat, nesting habits, and range. The panels for the native animals may also include specific biographical information about individual animals, including a description of why the animal came to the sanctuary and why it is unable to survive in the wild. The fifteen native species to be featured in the IMLS-supported panels are: **Bird Hill:** Red-tailed Hawk, American Crow, Eastern Screech Owl, Barred Owl, American Kestrel, Cooper's Hawk, Ring-Necked Pheasant, Turkey Vulture, Saw-Whet Owl, Broad-Winged Hawk, and Great Horned Owl. In **Drumlin Underground**, featured animal species are: red fox, striped skunk, opossum, and woodchuck.

Interpreted View panels, being outdoors, will be highly durable to withstand New England's harsh and changeable climate. They will be low profile for minimal intrusion on the view, with a mix of images and text. Design will be consistent to provide a recognizable "signature" look and style, and non-graphic (tactile, audio) elements may be included. Species Identification panels will also include image and text, and will be constructed of modular design for efficient, low-cost change and in-house replacement if needed. Specific construction materials have not yet been determined.

Specific Goals of this project tie into the Mass Audubon vision of protecting the nature of Massachusetts:

- we want visitors to increase their knowledge of native plants, animals and their habitats
- we want visitors to understand the specific threats to these animals and their habitats
- we want visitors to know how they can they can become involved, and to empower and motivate visitors to take direct action
- we want the panels to become a resource for multiple users—casual visitors, school groups, camp groups

Project Outcomes:

- visitors will be able to correctly identify native animals in our collection
- visitors will be able to define specific threats to the native animals and habitats featured
- visitors will learn about opportunities to get involved by volunteering at the sanctuary through ecological management projects, sanctuary work days, or through local conservation activities

Project Outputs:

- four interpreted view panels and fifteen species identification panels will be researched, tested, designed, and installed
- panels will incorporate information on threats to the animals and habitats featured
- applicable panels will provide information on ways visitors can get involved either at the sanctuary or at home,

Project Indicators:

- 80% of “casual” visitors will view the panels during a visit to Drumlin Farm
- 50% of “casual” visitors will be able to identify specific animals or habitats featured on the panels and be aware that there are threats to these animals or habitats
- 90% of all habitat-focused school programs will use the new panels as educational tools
- 50% increase in supplemental materials distributed at the admissions window (trail maps to explore new habitats at the farm, brochure on controlling invasive plant species at home, brochure on certifying vernal pools, etc.)
- 50% increase in volunteer hours related to ecological management projects at Drumlin Farm

2. GRANT PROGRAM GOALS: *Strengthening Visitor Education* supports the Museums for America goal of **Supporting Lifelong Learning** by directly addressing the informal education of on-site visitors of all ages to Drumlin Farm. As an outcome of its interpretive planning process, all Drumlin’s programming efforts are directed toward **advancing three interpretive themes**: we want our visitors to see how humans interact directly with the land for the purposes of raising food and fiber, to know that their personal decisions affect the nature of Massachusetts, and to understand that local land can be managed in a way to create and conserve wildlife habitat in addition to providing needed agricultural products.

By better serving the “casual” visitor to the farm, one who might be visiting to see the farmyard animals with a youngster or hike the trails, we hope to extend these educational messages in a subtle, yet effective, manner. This allows our “collections,” including native wildlife, farmyard animals, farm buildings, agricultural fields and gardens, and the habitats found on our 232 acre wildlife sanctuary along with their associated plants, animals, and natural features, to serve as educational tools for *all* our on-site visitors, not just those attending formal education programs. The multi-layered approach advanced by *Strengthening Visitor Education* addresses different learning needs of our audiences. The first phase of the program concentrated on improving interpersonal interpretive communication for on-site visitors, while the second phase, of which this proposal is part, concentrates on improving the self-directed experience.

3. HOW THE PROJECT FITS INTO THE STRATEGIC PLAN AND MISSION: The role of Mass Audubon as spelled out in its Strategic Plan is “to serve both as a leader and as a catalyst for conservation by acting directly to protect the nature of Massachusetts and by stimulating individual and institutional action through education, advocacy, and habitat protection.” By serving as the environmental resource for the area’s citizens, Drumlin Farm, through its interpretive programs, can help people understand the critical importance of protecting the region’s character and natural resources and how they can become directly involved. Building upon our on-site interpretive program—a “basic competency” of an educational organization—will give us the updated tools needed to serve our audience more effectively.

Mass Audubon’s vision states that “we embrace a vision of a Massachusetts in which people appreciate and understand native plants and animals and their habitats and work together to ensure that they are truly protected.” Through strategically-developed interpretive programs, Drumlin Farm will highlight the cultural and natural history of the sanctuary and region. The first phase of *Strengthening Visitor Education* focused on person-to-person, on-site interpretation, and new programs in this phase have focused on interpreting the geology of the drumlin, understanding the role of small farms in New England and the rich history of land use practices in this region, current conservation threats posed by the influx of invasive species, and other topics. Now, in the second phase, we want to extend the tenets of our mission to the casual visitor who might not participate in a program or be interested in interacting with a staff educator or docent.

As mentioned in the Strategic Plan Summary, Mass Audubon’s strategic direction was expanded into supplemental plans affecting all areas of its operations: science, education, information technology, communications, staff learning, and land protection. The Education Master Plan aims to create significant life experiences through increased contact hours with

participants and strong primary messages based on the conservation theme. Improved on-site interpretation at our sanctuaries was one of the most important needs identified during the education assessment. Drumlin Farm's recently completed Interpretive Plan reinforces that the sanctuary should present a clear set of educational messages to its public, identify and serve the needs of its visitors, and come up with a plan to deliver the messages to the public in the best way possible. *Strengthening Visitor Education* directly addresses this by identifying the three interpretive themes that we want to convey in our programs and exhibits and coming up with strategies to present these themes to our audience. Interpersonal interpretation was strengthened as the first step of reaching our casual, on-site visitors, and the improved exhibit and signage efforts comprise the second phase.

Our proposed project is a clear investment in institutional capacity. Having on-site interpretation that serves visitors who do not participate in programs or interact with educators has the potential to increase educational effectiveness dramatically. Our messages will be strong and consistent. The exhibit panels will be designed for permanence and incorporate sections that can easily be changed to incorporate updated information. Exhibit panels that are more likely to become dated (for instance, species identification panels for animals that might change, such as injured wildlife), will be designed so that Drumlin's staff can update the panels on their own without outside help. This will help ensure that *all* people visiting Drumlin Farm will be able to easily access educational information. The panels will also be useful as tools to augment staffed programs at the farm, including visits by school groups and programs for the general public.

4. STRATEGIC PLAN: PROCESS AND FINANCIAL RESOURCES: The focus for this proposal, *Strengthening Visitor Education*, grew from an intensive planning effort begun at Mass Audubon in the late 1990s. At that time, the organization had passed its centennial mark, welcomed a new president, and looked toward entering the 21st century with a plan in place to guide the next decade. In creating the Strategic Plan, twenty-seven staff and Board members served on strategic planning teams. These teams included five staff members working on the project full time, underscoring Mass Audubon's financial commitment to this effort. Members provided valuable input by participating in regional meetings and completing a survey on Mass Audubon's mission and activities. McKinsey & Company provided pro bono support, dedicating three full-time staff to the effort. By encouraging inclusiveness and direct participation, the process engaged people at all levels of the organization in candid and constructive dialogue. Another rewarding aspect was talking to, and learning from, directors and staff of other conservation organizations and state and federal agencies who contributed their frank assessments of Mass Audubon's strengths and weaknesses as well as their perspectives on important conservation issues.

The new strategic plan, guiding Mass Audubon from 2000 – 2010, was approved by the Board of Directors in 1999. Mass Audubon's vision and role were redefined (see Strategic Plan Summary), five primary environmental threats to the nature of Massachusetts were identified, and the desire to align program activities with conservation priorities to address state and local environmental concerns was stated.

Mass Audubon continued its commitment to the planning process by creating master plans for science, education, information technology, communications, staff learning, and land protection. Staff, board members, volunteers, outside experts, and others provided input in these plans. In developing the Education Master Plan, a seven-member team, representing all program departments, completed a comprehensive examination of our educational strengths, weaknesses, and opportunities. The team analyzed Mass Audubon's long record of educational programming while also taking a critical look at the environmental education field as a whole. The Education Master Plan grew from this process, reformulating our education strategy so our interactions with the citizens of Massachusetts will comprise a continuum of learning experiences that will ultimately motivate them to act on behalf of the environment. We view education not as an end in itself, but as the essential step in guiding citizens to become committed stewards of the nature of Massachusetts.

Mass Audubon's staff and Board have worked closely together over the past few years to align our strategic plan aspirations with our financial planning. McKinsey & Company again provided pro bono support to assist with long-range financial projections. While Mass Audubon is fortunate to have four strong streams of operating revenues (membership dues, gifts/grants and government contracts, endowment income, and earned revenue), as well as a substantial restricted endowment, budgets have been stretched thin during the recent economic downturn. Staff and Board are considering a statewide capital campaign to add endowment resources for further support of operations. In addition, a joint Board/staff Program Revenue Enhancement Task Force is exploring how to increase Mass Audubon's marketing prowess and further develop earned income which is mission-related. This work, started last summer, has already borne fruit in the sharing of best practices among educators and sanctuary directors at our eighteen staffed wildlife sanctuaries. In addition, our new

Director of Capital Assets and Planning is looking closely at Mass Audubon's facilities and other infrastructure to ensure that we are making adequate investments in our physical plant. Finally, Mass Audubon has invested heavily in information technology through our information technology strategic plan in the past five years to update our equipment to enhance staff efficiency and better deliver information and services to our members and visitors.

5. APPROPRIATENESS OF PROJECT FOR INSTITUTION, AUDIENCE: The audience for *Strengthening Visitor Education* is on-site visitors of all ages to Drumlin Farm. While the project is primarily designed to provide information for the many visitors not attending on-site programs or visiting with a group, the project's outputs will have a definite benefit for all who visit the farm. Drumlin Farm had over 106,000 on-site visitors in the last complete fiscal year, including on-site program attendees, and attendance can range as high as 150,000. In the past year, over 76,000 people visited Drumlin Farm who did not participate in programs. The majority come from a 60-mile range of the sanctuary, and most of these visitors are member families, often visiting with young children. Mass Audubon raised the visibility of membership recruitment through its sanctuary system, and many members join during special promotional time periods and also at the admissions window at the sanctuaries. Drumlin has benefited enormously from new member recruitment. On weekdays, the majority of non-program visitors are members (estimated at 90%), while weekends see a higher percentage of non-members (estimated 70% member visitation on weekends).

Mass Audubon has 65,000 member households, and Drumlin's high visibility among the sanctuaries puts it near the top in membership recruitment. Member families come from throughout the state and beyond, but the majority of members visiting Drumlin live in the surrounding communities. These communities are diverse, ranging from the upper and upper-middle income suburbs that include Lincoln, Weston, Lexington, Wellesley, Carlisle, Wayland, and Sudbury, to more urban and diverse suburbs and cities including Cambridge, Arlington, Medford, Somerville, Waltham, and Lowell. School, camp, and group attendance further diversifies our on-site visitation, with about 20% of school and group attendance coming from "high need," generally urban school districts as defined by the state. A camp scholarship program and the DOAR (Drumlin Outreach and Assistance Resources) program have been a great help in broadening the reach of Drumlin's programs, providing assistance to those who might not otherwise be able to visit.

Mass Audubon's Education Master Plan identified the critical need to provide on-site interpretation for visitors to our sanctuaries who did not participate in programs. The people involved in creating Drumlin Farm's Interpretive Plan—staff, sanctuary Advisory Committee members, docents, long-term volunteers, and community members—concurred with this need, realizing the enormous educational potential of reaching this underserved group. As *Strengthening Visitor Education* will also benefit on-site program participants, including school groups, day campers, homeschoolers, and others, the program's impact is greatly expanded. Main Street Design, in creating the Interpretive Design Master Plan, came up with the multi-layered interpretive components that will comprise the second phase of *Strengthening Visitor Education*, augmenting the interpersonal interpretive communication instituted in the program's first phase.

6. PROJECT RESOURCES: TIME AND BUDGET: The project will be implemented in two phases: research, design, creation, and installation of the interpreted view panels will take place in the year beginning August 2005, with the corresponding work done for the fifteen species identification panels in the year beginning August 2006. During the first year, Drumlin staff will perform a formative evaluation of the site needs and conditions to assess placement of signs. Design work will take place the first six months of the project, and mockups of the panels will be installed in the fall of 2005 to test design, content, and placement. Text development and design review will take place in late fall and early winter of 2005/06, with production, fabrication, and installation to occur in spring of 2006. Evaluation will take place throughout the summer. The schedule for work on the fifteen species identification panels in the second program year will closely mirror that of the interpreted view panels. A final project report will be completed in the summer of 2007.

Improved on-site interpretation at our sanctuaries is a priority for Mass Audubon. The creation of the positions of Visitor Experience Coordinator at Mass Audubon and Adult and Visitor Education Manager at Drumlin Farm underscores this commitment, along with support for the creation of Interpretive Plans for staffed sanctuaries and phased-in plans for implementation. Through its entire planning process, from the Strategic Plan down to individual plans for each sanctuary, Mass Audubon has worked hard to present a unified and consistent message statewide, and this project at Drumlin Farm is an extension of this effort.

Total expenses for our project are \$122,870, of which we are requesting a grant of \$61,426 from IMLS. Funds from IMLS would cover the expenses related to hiring Main Street Design to design and create the panels. Matching funds will

come from the time of Drumlin Farm and Mass Audubon staff involved in the project, reflecting our commitment to interpretation. The time of Drumlin's Volunteer Coordinator will be increased by eight hours (to 40 hours) so that she can manage the details of getting the panels from the concept stage to installation. IMLS funds are being requested for a small portion of these added hours (29%), and Drumlin will cover the remainder.

7. PROJECT RESOURCES: PERSONNEL AND TECHNOLOGY

Lucy Gertz is Mass Audubon's Visitor Experience Coordinator. In this role, she works with sanctuary staff to develop interpretive materials, including sanctuary maps, take-away brochures, and welcome kiosks. Drumlin Farm's Interpretive Plan was developed under her guidance. For future interpretive exhibits, including the exhibits in this proposal, her role is to ensure that the exhibits fit Mass Audubon's mission as well as the themes set out in the sanctuary's Interpretive Plan. Lucy has 24 years of experience in environmental education (résumé attached).

Sue MacCallum is Drumlin's Adult and Visitor Education Manager. She takes the lead on coordinating the Interpretive Work Group meetings, serves as liaison to Mass Audubon's Visitor Experience Coordinator, and supervises two full-time and twelve part-time Teacher Naturalists who present daily visitor education programs. Sue has worked at Drumlin Farm for fifteen years and brings an historical perspective to the Work Group, as well as a strong understanding of current Mass Audubon goals. In addition to working with the Interpretive Work Group, Sue will be the contact person for the exhibit design consultants, assist the Volunteer Coordinator with setting project timelines and ensuring that deadlines are met, and be responsible for all project assessments and reports.

The **Interpretive Work Group** is comprised of six Drumlin staff: Sue MacCallum (project role above), Christy Foote-Smith, Kris Scopinich, Molly Hawkins, Tia Pinney, and Emily Schadler. This group has been active for the past two years, meeting for two hours twice each month. The group is responsible for prioritizing interpretive projects, developing text for projects, assisting with the search for funding, researching graphics, and signing off on all of Drumlin's interpretive projects. The group is a major player in the implementation of the Interpretive Design Master Plan. Each member brings a unique skill or perspective to the group:

Christy Foote-Smith is the Sanctuary Director of Drumlin Farm. Her role in this group involves looking at the impacts any new projects will have on the entire sanctuary, on the variety of Drumlin education programs, and on the community.

Kris Scopinich is Drumlin's Manager of Youth and Family Education. Kris has an extensive background in environmental and community-based education, as well as significant experience in research and evaluation methods that assess moral and ethical development. In relation to this project, Kris knows which messages will best support current school programs and meet state and local curriculum frameworks, plus the most effective methods to use for reaching our multi-age audiences.

Molly Hawkins is the Volunteer Coordinator for Drumlin Farm. She supervises the docent program, which is a group of volunteers involved in interpersonal visitor education. Molly is also the liaison with Mass Audubon's scientific staff for the sanctuary's ecological management activities, which will be an important emphasis in the exhibit panels. For the IMLS project, Molly will act as "clerk of the works," with supervision by Sue MacCallum. Molly will ensure that deadlines are met, text is edited in a timely fashion, and in general, keeping projects moving forward. Her current position will be augmented by eight hours per week to accomplish the project's goals (29% of added hours part of IMLS request, remainder to be covered by Drumlin Farm).

Tia Pinney is one of Drumlin's full-time Teacher Naturalists, interacting with school groups and casual visitors. She is our "ear to the ground," in that she knows what questions visitors ask most frequently, where there is confusion, and which areas are most visited.

Emily Schadler is Drumlin's other full-time Teacher Naturalist. Her role at the sanctuary is to support and develop visitor education programs that focus on Drumlin's habitats, farming practices, and ecological management efforts. In addition to her strong teaching skills, Emily has experience with copy editing as well as layout and design, which will be very useful as we develop text for interpretive panels.

Main Street Design, an exhibit design firm, was hired in March 2004 to prepare and present an Interpretive Design Master Plan for Drumlin Farm. The plan was supported and funded by monies from Drumlin's Capital Campaign, which is committed to improving the site through building renovations and interpretation. Five local exhibit design firms were contacted for interviews, and the three who responded with interest in the project were asked to submit proposals and consequently interviewed. Following their presentations to a panel of Drumlin and Mass Audubon staff, Main Street Design was selected. Main Street Design has a history of successful exhibit design projects at Mass Audubon sanctuaries, including at Wellfleet Bay Wildlife Sanctuary on Cape Cod and at an urban sanctuary, the Boston Nature Center. These recent projects have given Main Street Design a strong understanding of Mass Audubon's goals and messages. Drumlin's Interpretive Design Master Plan was completed in November 2004.

As this plan is implemented, Main Street Design will guide Drumlin staff as they develop text, research graphics, and work on siting and creation of the panels. Main Street Design is responsible for creating the final panel designs, determining appropriate materials for panel fabrication, and subcontracting out for panel production. Main Street Design staff who are involved in this project are:

Tevere MacFadyen is the Lead Interpretive Planner, providing overall design direction for the project. He is a professional writer and editor who has proven to be a strong facilitator during meetings for the implementation plan. Tevere has a strong interest in and understanding of local farm issues, and is a supporter of local farmers' markets. This knowledge has made the meetings much more effective and efficient, since our staff members do not need to explain ecological concepts!

Penny Perez is the Senior Exhibit Designer, coordinating concept design direction and incorporating ideas that arise during meetings into the projects. Penny is also a local resident who has walked Drumlin's trails and is very familiar with the sanctuary, proving invaluable during concept discussions. She has a good sense of what is appropriate for the site, key locations that need interpretation, and a strong understanding of the key messages that Drumlin wishes to convey.

Julie Steinhilber is Main Street's Graphic Designer. Her design ideas have been strong and clear during the implementation plan meetings. We have been impressed with her ability to listen to suggestions and new directions, and then adapt her concepts to reflect staff ideas.

Project Budget Form

SECTION 1: SUMMARY BUDGET

Name of Applicant Organization Drumlin Farm Wildlife Sanctuary

IMPORTANT! READ INSTRUCTIONS ON PAGES 3.4-3.5 BEFORE PROCEEDING.

DIRECT COSTS

| | IMLS | Applicant | Total |
|---------------------------------|-------------------------|-------------------------|--------------------------|
| SALARIES & WAGES | <u>3,730</u> | <u>42,237</u> | <u>45,967</u> |
| FRINGE BENEFITS | <u>988</u> | <u>11,193</u> | <u>12,181</u> |
| CONSULTANT FEES | <u>8,400</u> | <u>0</u> | <u>8,400</u> |
| TRAVEL | <u>0</u> | <u>0</u> | <u>0</u> |
| MATERIALS, SUPPLIES & EQUIPMENT | <u>47,600</u> | <u>0</u> | <u>47,600</u> |
| SERVICES | <u>0</u> | <u>0</u> | <u>0</u> |
| OTHER | <u>0</u> | <u>0</u> | <u>0</u> |
| TOTAL DIRECT COSTS | \$ <u>60,718</u> | \$ <u>53,430</u> | \$ <u>114,148</u> |
| INDIRECT COSTS | \$ <u>708</u> | \$ <u>8,014</u> | \$ <u>8,772</u> |
| TOTAL PROJECT COSTS | | | \$ <u>122,870</u> |

AMOUNT OF CASH-MATCH \$ 0

AMOUNT OF IN-KIND CONTRIBUTIONS \$ 61,444

TOTAL AMOUNT OF MATCH (CASH & IN-KIND CONTRIBUTIONS) \$ 61,444

AMOUNT REQUESTED FROM IMLS, INCLUDING INDIRECT COSTS \$ 61,426

PERCENTAGE OF TOTAL PROJECT COSTS REQUESTED FROM IMLS 50 %
(MAY NOT EXCEED 50%)

Have you received or requested funds for any of these project activities from another federal agency?
(Please check one) ☐ Yes ☒ No

If yes, name of agency _____

Request/Award amount _____

Project Budget Form

SECTION 2: DETAILED BUDGET

Year ☒ 1 ☐ 2 ☐ 3 - Budget Period from 8 / 1 / 05 to 7 / 30 / 06

Name of Applicant Organization Drumlin Farm Wildlife Sanctuary

IMPORTANT! READ INSTRUCTIONS ON PAGES 3.4-3.5 BEFORE PROCEEDING.

SALARIES AND WAGES (PERMANENT STAFF)

| NAME/TITLE | No. | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|------------------------------------|-----|-------------------------------|-------|-----------|--------|
| <u>[REDACTED]</u> | (1) | 208 hrs/yr x 23.46/hr | 0 | 4,880 | 4,880 |
| <u>[REDACTED]</u> | (1) | 416 hrs/vr x 15.41/hr | 1,911 | 4,500 | 6,411 |
| <u>[REDACTED]</u> | (1) | 40 hrs/yr x 22.37/hr | 0 | 895 | 895 |
| <u>[REDACTED]</u> | (5) | 96 hrs/yr/pp x 22.02/hr | 0 | 10,570 | 10,570 |
| TOTAL SALARIES AND WAGES \$ | | | 1,911 | 20,845 | 22,756 |

SALARIES AND WAGES (TEMPORARY STAFF HIRED FOR PROJECT)

| NAME/TITLE | No. | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|------------------------------------|-----|-------------------------------|-----------------------------|-----------------------------|-----------------------------|
| <u> </u> | () | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| TOTAL SALARIES AND WAGES \$ | | | 0 | 0 | 0 |

FRINGE BENEFITS

| RATE | | SALARY BASE | IMLS | APPLICANT | TOTAL |
|---------------------------------|---------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 26.5% | % of \$ | 22,756 | 506 | 5,524 | 6,030 |
| <u> </u> | % of \$ | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | % of \$ | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| TOTAL FRINGE BENEFITS \$ | | | 506 | 5,524 | 6,030 |

CONSULTANT FEES

| NAME/TYPE OF CONSULTANT | RATE OF COMPENSATION (DAILY OR HOURLY) | NO. OF DAYS (OR HOURS) ON PROJECT | IMLS | APPLICANT | TOTAL |
|---|---|--------------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Main Street Design (exhibit design consultant) | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| 3 consultants | \$100/hr/pp | 13 each | 3,900 | 0 | 3,900 |
| TOTAL CONSULTANT FEES \$ | | | 3,900 | 0 | 3,900 |

TRAVEL

| FROM/TO | NUMBER OF: PERSONS DAYS | SUBSISTENCE COSTS | TRANSPORTATION COSTS | IMLS | APPLICANT | TOTAL |
|------------------------------|----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <u> </u> | () () | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () () | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () () | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () () | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| TOTAL TRAVEL COSTS \$ | | | | 0 | 0 | 0 |

Project Budget Form

SECTION 2: DETAILED BUDGET CONTINUED

Year ☒ 1 ☐ 2 ☐ 3

MATERIALS, SUPPLIES AND EQUIPMENT

| ITEM | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|--|-------------------------------|--------|-----------|--------|
| Four Interpretive View Panels (production & fabrication) | Consultant Estimate (quote) | 22,100 | 0 | 22,100 |
| TOTAL COST OF MATERIALS, SUPPLIES, & EQUIPMENT \$ | | 22,100 | 0 | 22,100 |

SERVICES

| ITEM | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|--------------------------------|-------------------------------|------|-----------|-------|
| | | | | |
| | | | | |
| | | | | |
| TOTAL SERVICES COSTS \$ | | 0 | 0 | 0 |

OTHER

| ITEM | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|-----------------------------|-------------------------------|------|-----------|-------|
| | | | | |
| | | | | |
| | | | | |
| TOTAL OTHER COSTS \$ | | 0 | 0 | 0 |

| | | | |
|--------------------------------------|--------|--------|--------|
| TOTAL DIRECT PROJECT COSTS \$ | 28,417 | 26,369 | 54,786 |
|--------------------------------------|--------|--------|--------|

INDIRECT COSTS

Check either item A or B and complete C. (See section on Indirect Costs, page 3.5.)

Applicant organization is using:

- ☒ A. An indirect cost rate which does not exceed 15 percent of modified total direct costs charged to IMLS.
- ☐ B. Federally negotiated indirect cost rate (see page 3.5).

Name of Federal Agency Expiration

Date of Agreement

Rate base Amount(s)

15 % of \$ 28,786 = \$ 4,318

IMLS Applicant

Total

C. Total Indirect Costs

\$ 363 \$ 3,955

\$ 4,318

Project Budget Form

SECTION 2: DETAILED BUDGET

Year ☐ 1 ☒ 2 ☐ 3 - Budget Period from 8 / 1 / 06 to 7 / 30 / 07

Name of Applicant Organization Drumlin Farm Wildlife Sanctuary

IMPORTANT! READ INSTRUCTIONS ON PAGES 3.4-3.5 BEFORE PROCEEDING.

SALARIES AND WAGES (PERMANENT STAFF)

| NAME/TITLE | No. | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|------------------------------------|-----|----------------------------|-------|-----------|--------|
| <u>[REDACTED]</u> | (1) | 208 hrs/yr x 23.93/hr | 0 | 4,978 | 4,978 |
| <u>[REDACTED]</u> | (1) | 416 hrs/yr x 15.72/hr | 1,819 | 4,720 | 6,539 |
| <u>[REDACTED]</u> | (1) | 40 hrs/yr x 22.82/hr | 0 | 913 | 913 |
| <u>[REDACTED]</u> | (5) | 96 hrs/yr/pp x 22.46/hr | 0 | 10,781 | 10,781 |
| TOTAL SALARIES AND WAGES \$ | | | 1,819 | 21,392 | 23,211 |

SALARIES AND WAGES (TEMPORARY STAFF HIRED FOR PROJECT)

| NAME/TITLE | No. | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|------------------------------------|-----|---|-----------------------------|-----------------------------|-----------------------------|
| <u> </u> | () | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| TOTAL SALARIES AND WAGES \$ | | | 0 | 0 | 0 |

FRINGE BENEFITS

| RATE | | SALARY BASE | IMLS | APPLICANT | TOTAL |
|---------------------------------|---------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 26.5% | % of \$ | 23,211 | 482 | 5,669 | 6,151 |
| <u> </u> | % of \$ | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | % of \$ | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| TOTAL FRINGE BENEFITS \$ | | | 482 | 5,669 | 6,151 |

CONSULTANT FEES

| NAME/TYPE OF CONSULTANT | RATE OF COMPENSATION (DAILY OR HOURLY) | No. OF DAYS (OR HOURS) ON PROJECT | IMLS | APPLICANT | TOTAL |
|---|--|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|
| Main Street Design (exhibit design consultant) | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| 3 consultants | \$100/hr/pp | 15 each | 4,500 | 0 | 4,500 |
| <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| TOTAL CONSULTANT FEES \$ | | | 4,500 | 0 | 4,500 |

TRAVEL

| FROM/TO | NUMBER OF: PERSONS DAYS | SUBSISTENCE COSTS | TRANSPORTATION COSTS | IMLS | APPLICANT | TOTAL |
|------------------------------|-------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| <u> </u> | () () | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () () | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () () | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| <u> </u> | () () | <u> </u> | <u> </u> | <u> </u> | <u> </u> | <u> </u> |
| TOTAL TRAVEL COSTS \$ | | | | 0 | 0 | 0 |

Project Budget Form

SECTION 2: DETAILED BUDGET CONTINUED

 Year ☐ 1 ☒ 2 ☐ 3

MATERIALS, SUPPLIES AND EQUIPMENT

| ITEM | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|--|-------------------------------|---------------|-----------|---------------|
| 15 Species Identification | Consultant Estimate (quote) | 25,500 | 0 | 25,500 |
| Panels (production & fabrication) | | | | |
| TOTAL COST OF MATERIALS, SUPPLIES, & EQUIPMENT \$ | | 25,500 | 0 | 25,500 |

SERVICES

| ITEM | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|--------------------------------|-------------------------------|----------|-----------|----------|
| | | | | |
| | | | | |
| | | | | |
| TOTAL SERVICES COSTS \$ | | 0 | 0 | 0 |

OTHER

| ITEM | METHOD OF COST COMPUTATION | IMLS | APPLICANT | TOTAL |
|-----------------------------|-------------------------------|----------|-----------|----------|
| | | | | |
| | | | | |
| | | | | |
| TOTAL OTHER COSTS \$ | | 0 | 0 | 0 |

| | | | |
|--------------------------------------|---------------|---------------|---------------|
| TOTAL DIRECT PROJECT COSTS \$ | 32,301 | 27,061 | 59,362 |
|--------------------------------------|---------------|---------------|---------------|

INDIRECT COSTS

Check either item A or B and complete C. (See section on Indirect Costs, page 3.5.)

Applicant organization is using:

- ☒ A. An indirect cost rate which does not exceed 15 percent of modified total direct costs charged to IMLS.
☐ B. Federally negotiated indirect cost rate (see page 3.5).

Name of Federal Agency Expiration

Date of Agreement

Rate base Amount(s)

15 % of \$ 29,362 = \$ 4,404

| | | | |
|-------------------------|--------|-----------|----------|
| | IMLS | Applicant | Total |
| C. Total Indirect Costs | \$ 345 | \$ 4,059 | \$ 4,404 |

DRUMLIN FARM: MUSEUMS FOR AMERICA BUDGET JUSTIFICATION

SALARIES AND WAGES: Mass Audubon will cover the expenses of [REDACTED], as an in-kind match for the project (40 hours/year). [REDACTED] will help develop interpretive materials and make certain that they meet Mass Audubon's mission. Other in-kind support provided by Drumlin includes:

- the *Adult and Visitor Education Manager*, who will coordinate the Interpretive Work Group meetings, serve as liaison to the Visitor Experience Coordinator and to the exhibit design consultants, supervise the Teacher Naturalists, assist the Volunteer Coordinator, and produce assessments and reports. (four hours/week)
- *Interpretive Work Group* members. Each of the five members is included in the proposal for four hours per month throughout the project. This group is heavily involved in researching and developing text for the panels, researching graphics, and signing off on all interpretive elements. The time of the Adult and Visitor Education Manager is not included in the budget line for this group, but the regular time of Molly Hawkins, Volunteer Coordinator, is included in this calculation. The average salary for the five group members included in calculations is \$22.02/hour (\$22.02 x 96 hours total for year = \$10,570).

In addition to her time in the Interpretive Work Group, which is being provided as a match, Drumlin Farm would like to increase the time of the [REDACTED], by eight hours per week for the two year grant period so she can perform the duties of "clerk of the works," ensuring that deadlines are met, text is edited in a timely fashion, and in general, keeping projects moving forward. We are requesting 29% of these added hours as part of the IMLS request, with the remainder to be covered by Drumlin Farm.

A 2% cost of living increase is included in all salary computations for Year Two of the project.

Fringe Benefits: These are calculated at the current Mass Audubon rate of 26.5%.

Consultant Fees and Materials, Supplies and Equipment: Five local exhibit design firms were contacted for interviews, and the three who responded with interest in the project were asked to submit proposals and consequently interviewed. Following their presentations to a panel of Drumlin and Mass Audubon staff, Main Street Design was selected. Main Street Design has a history of successful exhibit design projects at Mass Audubon sanctuaries, including at Wellfleet Bay Wildlife Sanctuary on Cape Cod and at an urban sanctuary, the Boston Nature Center. Main Street Design will guide Drumlin staff as they develop text, research graphics, and work on siting and creation of the panels. They will also be responsible for creating the final panel designs, determining appropriate materials for panel fabrication, and subcontracting out for panel production. The expenses for consultant fees and the production and fabrication of the panels were derived from an estimated Interpretive Component Implementation Budget provided by Main Street Design.

Overhead: This has been calculated at the IMLS approved rate of 15%. Overhead has not been applied to "distorting costs" related to the Main Street Design expenses (time of their consultants and the production and fabrication of the panels).